

CLAIMS

What is claimed is:

1. Electric machine (1), comprising a stator and a rotor (28), with the laminations (2) of the stator having axial slots (4) and teeth extending between the adjacent slots (4) in direction air gap, wherein at least a predefined number of teeth (5, 6) are respectively surrounded by tooth coils (7), and at least one section (3) is provided in circumferential direction of the stator and is configured without slots while following the contour of the stator bore (11) in the area of the air gap.
2. Electric machine (1) according to claim 1, characterized in that the slotless section 3 (3) covers 60 degrees of the circumferential area.
3. Electric machine (1) according to claim 1 or 2, characterized in that the slotless sections (3) oppose one another.
4. Electric machine (1) according to one of the preceding claims, characterized in that the rotor (28) has permanent magnets (20).
5. Electric machine (1) according to one of the preceding claims, characterized in that the rotor (28) has at least one induction cage (21).
6. Electric machine (1) according to one of the preceding claims, characterized in that the stator has a gapped tooth coil winding.
7. Electric propulsion vehicle with an electric machine (1) according to one or more of the preceding claims.

8. Electric propulsion vehicle according to claim 7, characterized in that the slotless sections (3) of the electric machine (1) are positioned between rail (12) and vehicle body (11).

9. Electric propulsion vehicle according to claim 7 or 8, characterized in that the electric machine (1) propels a wheel set (10) or a single wheel directly or through intervention of a transmission.

10. Electric propulsion vehicle according to claim 9, characterized in that the electric machine (1) propels the wheel set (10) in a cushioned manner, in particular via a clutch, or unsprung in an axis-straddling manner.

11. Machine tool with an electric machine (1) according to one or more of the preceding claims 1 to 6.